# FY 2013-2016 TRANSPORTATION IMPROVEMENT PROGRAM CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ) FUNDS NEW PROJECT APPLICATION

Clear Form and Create New Project Retrieve Existing Project Update/Save Project PROJECT RECORD NUMBER 3249001 Clear All Fields WRITE DOWN THE PROJECT NUMBER. YOU WILL NEED IT IF YOU WISH TO RETRIEVE / EDIT / PRINT THE PROJECT APPLICATION AT A LATER TIME. Select one: In progress Preliminary complete (ready for comments)- Due February 24, 2012 Final complete - Due March 23, 2012 Signatures, Supplemental Information, and Application Fee - Due March 23, 2012 A. SPONSOR INFORMATION CITY OF ST CHARLES Sponsoring Agency: Chief Elected Official: MAYOR SALLY A FAITH Address: 200 NORTH SECOND STREET ST CHARLES City: State: MO Zip: 63301 Project Contact: KEVIN CORWIN, PE Address: 200 NORTH SECOND STREET ST CHARLES City: State: MO Zip 63301 Phone: 636-949-3513 Fax: 636-940-4601 KEVIN.CORWIN@STCHARLESCITYMO.GOV E-mail: Application Contact: BRAD TEMME, PE E-Mail: BRAD.TEMME@STCHARLESCITYMO.GOV Phone: 636-940-4617 PROJECT INFORMATION

# B.

Project Title: KINGSHIGHWAY SIGNALIZATION IMPROVEMENT PROJECT

Project Limits (i.e., Taylor Ave to Moss St or over Moss Creek - include map.):

Kingshighway beginning with the entire intersection of Jefferson Street and ending with the entire intersection of Monroe Street.

| Is this project a continuation of, or is it otherwise related to, another project that previously was programmed in the TIP? If so, explain this relationship. |
|--|
| No.  |
|  |
|  |
|  |
|  |
| Has your agency previously competed for funds for this specific project? If so, when?  |
| No.  |
|  |
|  |
|  |
| Does your agency own and maintain this facility? Yes If no, a letter of support is required from the facility owner.   |
| Project Length (Miles): 0.20   |
| Federal Functional Roadway Classification (per East-West Gateway): Minor Arterial <04>   |
| (URL for functional classification maps: http://www.ewgateway.org/trans/funcclass/funcclass.htm)   |
| Right of Way   |
|  |
| Will additional right of way or easement be acquired?: Unknown   |
| If yes, give details below:  |
| - Estimated additional right of way (in acres) needed: 0.0   |
| - Estimated permanent easements (in acres) needed: 0.1   |
| - Estimated temporary easements (in acres) needed: 0.1   |
| - Any residential or commercial displacements anticipated? If yes, give details on how many and if they are residential and/or commercial.                     |
| No. A small section of sidewalk easement may be needed to make the intersections ADA compliant.  |
|  |
|  |
| Right of way acquisition by: Local Agency  |
| Pight of way condomnation by: Legal Agency   |

# **Utility Coordination**

| Will coordination with<br>Then give the names o         |                |  |
|---|----------------|--|
| Electric  | <b>√</b>       | Ameren Missouri  |
| Phone   | <b>√</b>       | AT&T Distribution  |
| Gas   | <b>√</b>       | Laclede Gas  |
| Water   | $\checkmark$   | City of St. Charles  |
| Cable TV  | $\checkmark$   | Charter Communications   |
| Storm Sewer   | $\checkmark$   | City of St. Charles  |
| Sanitary Sewer  | . 🗸            | City of St. Charles  |
| Other   | $\checkmark$   | MoDOT  |
|   |                | g potential utility conflicts / problems / issues:   |
| The utilities listed above utilities and will be design | were<br>gned t | shown as existing within the project corridor. The proposed project will not impact any o avoid any utility conflicts. |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
|   |                |  |
| Lility coordination cor                                 | nplet          | ed by: Local Agency  |

Intelligent Transportation Systems (ITS) Architecture:
Projects must comply with the regional ITS standards as set forth in the document titled *Bi-State St. Louis Regional ITS* Architecture, April 2005

### C. PROJECT JUSTIFICATION

**Please describe** 1.) the proposed improvement, 2.) the transportation problem the improvement will address, 3.) the effect the improvement will have on the problem.

Be as specific as possible. Attach additional sheets as needed.

The project will improve traffic flow along Kingshighway just north of Lindenwood University. The project will upgrade signal equipment, interconnect the intersections of Watson and Kingshighway with Elm and Kingshighway, reduce entrance widths to promote safety, and provide ADA accessible pedestrian facilities.

This section of roadway has an ADT of 6,830 vehicles and is the location with the highest concentration of accidents on non-state routes within the City of St. Charles due to frequent stops and congestion. The existing signals operate pretimed because of traffic controller limitations and lack of interconnection. The signal and pedestrian improvements will reduce delay per vehicle by 7.05 seconds.

This project is located immediately north of the proposed Lindenwood Town Center Development at First Capital Drive and Kingshighway that will include a new Schnucks, a pharmacy, a hotel, and retail businesses providing a destination for additional pedestrian activity along an ADA accessible path. Additionally Jimmy John's sub shop is redeveloping a parcel at the southern end of this project that will draw traffic from the local community and Lindenwood University. These improvements will help serve the community and University by providing better access to these trip generators.

# Type of Project

Check the box(es) below that best describe the proposed improvement. More information can be found in Appendix A.

| Transit                          | Traffic Flow Improvements                  |
|----------------------------------|--|
| System Startup                   | ✓ Traffic Signal Interconnect              |
| Transfer Center                  | ✓ Traffic Signal Replacement               |
| Vehicle Replacement              | New Traffic Signals                        |
| New Vehicle                      | ✓ Signal Controller Upgrades               |
| Park-and-Ride Facilities         | ✓ Intersection Improvements                |
| Other (specify):                 | Roadway Bottleneck Elimination             |
|                                  | ✓ Other (specify): Reduced Driveway Widths |
| Ride Share                       | Pedestrian and Bicycle Program             |
| Rideshare Program                | Bicycle Parking Improvements               |
| Vanpool/Carpool Program          | Bicycle Lanes                              |
| Park-and-Ride Facilities         | ✓ Pedestrian Ways                          |
| Reverse Commute Program          | Other (specify):                           |
| Other (specify):                 |  |
| Demand Management                | Inspection Maintenance Program             |
| Transportation Management Assoc. | Roadside Emission Testing                  |
| Transit Pass Subsidy             | Enhanced I-M Program                       |
| Transit Information/Marketing    | Mechanic Training Program                  |
| Educational Program              | Other (specify):                           |
| Other (specify):                 |  |

# D. EMISSIONS DATA

Attach all applicable data identified in the Data Requirements Matrix (at the end of this application) for the type of project being proposed. Provide all information as completely as possible. Please contact East-West Gateway staff if any of the information requested is unclear or unavailable, or if there are questions concerning applicability. Additional project data may be submitted and is encouraged.

Note: East-West Gateway staff will calculate the emission reduction(s).

# D. FINANCIAL PLAN

Please complete the following expenditure tables and attach a detailed cost estimate (an example is included in Appendix B of the workbooks).

Federal funds must not exceed 80% of the total cost. Fiscal years are federal fiscal years (October 1 through September 30). In Illinois, federal funds are available for FY 2013. In Missouri, federal funds are available for FY 2014.

| PROJECT BUDGET                   | FY 2013  | FY 2014   | FY   | TOTAL     |
|----------------------------------|----------|-----------|------|-----------|
| PE/Planning/ Environ.<br>Studies | 32974.00 | 0.00      |      | 32974.00  |
| Right-Of-Way                     | 40000.00 | 0.00      |      | 40000.00  |
| Implementation                   | 0.00     | 329743.00 |      | 329743.00 |
| Construction<br>Engineering      | 0.00     | 16487.00  |      | 16487.00  |
| Implementation Total             | 0.00     | 346230.00 | 0.00 | 346230.00 |
| PHASE TOTAL                      | 72974.00 | 346230.00 | 0.00 | 419204.00 |

| SOURCE OF FUNDS                      | FY 2013  | FY 2014   | FY   | TOTAL     |
|--------------------------------------|----------|-----------|------|-----------|
| CMAQ Funds                           | 58379.00 | 276984.00 |      | 335363.00 |
| Other Fed. Funds Source:             | 0.00     | 0.00      |      | 0.00      |
| Other State Funds Source:            | 0.00     | 0.00      |      | 0.00      |
| Local Match Funds Source: City Funds | 14595.00 | 69246.00  |      | 83841.00  |
| Other Funds Source:                  | 0.00     | 0.00      |      | 0.00      |
| TOTAL                                | 72974.00 | 346230.00 | 0.00 | 419204.00 |

# Standard TIP Project Development Schedule Form (many stages can occur concurrently)

| Activity Description   | Start Date<br>(MM/YYYY) | Finish Date (MM/YYYY) | Time Frame<br>(Months) |
|--|-------------------------|-----------------------|------------------------|
| Receive Notification Letter  | 07/2012                 | 08/2012               | 1.0                    |
| Execute Agreement (Project sponsor & DOT)  | 08/2012                 | 10/2012               | 2.0                    |
| Engineering Services Contract Submitted & Approved <sup>1</sup>                                    | 10/2012                 | 01/2013               | 3.0                    |
| Obtain Environmental Clearances (106, CE-2, etc.)  | 01/2013                 | 03/2013               | 2.0                    |
| Public Meeting/Hearing   | 03/2013                 | 03/2013               | 1.0                    |
| Develop and Submit Preliminary Plans   | 01/2013                 | 03/2013               | 2.0                    |
| Preliminary Plans Approved   | 03/2013                 | 04/2013               | 1.0                    |
| Develop and Submit Right-of-Way Plans  | 04/2013                 | 05/2013               | 1.0                    |
| Review and Approval of Right-of-Way Plans  | 05/2013                 | 06/2013               | 1.0                    |
| Submit & Receive Approval for Notice to Proceed for Right-of-Way Acquisition (A-Date) <sup>2</sup> | 05/2013                 | 06/2013               | 1.0                    |
| Right-of-Way Acquisition   | 06/2013                 | 08/2013               | 2.0                    |
| Utility Coordination   | 03/2013                 | 08/2013               | 5.0                    |
| Develop and Submit PS&E  | 08/2013                 | 10/2013               | 2.0                    |
| District Approval of PS&E/Advertise for Bids <sup>3</sup>  | 10/2013                 | 11/2013               | 1.0                    |
| Submit and Receive Bids for Review and Approval  | 11/2013                 | 01/2014               | 3.0                    |
| Project Implementation/Construction  | 01/2014                 | 07/2014               | 6.0                    |

- 1. Preliminary engineering obligated.
- 2. Right of way obligated.
- 3. Construction/implementation funds obligated.

# Financial Certification of Matching Funds

This is to assure sufficient funds are available to pay the non-federal share of project expenditures for the following projects to be funded under the provisions of SAFETEA-LU. Only one certification per sponsoring agency is necessary.

| Project Title  | Non-federal Amount    |
|--|-----------------------|
| KINGSHIGHWAY SIGNALIZATION IMPROVEMENT PROJECT       | 83841.00              |
| Sponsoring Agency: CITY OF ST CHARLES                |                       |
| Chief Elected Official (or Chief Executive Officer): |                       |
| Name (Print): Mayor Sally A Faith                    |                       |
| Signature: Solly a Facility                          | Attest:               |
| Date: 3/20/12  | City Clerk City Clerk |
| Chief Financial Officer:                             |                       |
| Name (Print): Kelly Vaughn                           |                       |
| Signature:   |                       |
| Date:  |                       |

# E. Person of Responsible Charge Certification

Person of responsible charge – design phase

The key regulatory provision, 23 CFR 635.105 – Supervising Agency, provides that the State Transportation Agency (STA) is responsible for construction of Federal-aid projects, whether it or a local public agency (LPA) performs the work. The regulation provides that the STA and LPA must provide its full-time employee to be in "responsible charge" of the project.

The undersigned employees(s) of the Project Sponsor will act as person of responsible charge. If at any point the employee leaves the LPA, the LPA is responsible for finding a suitable replacement and notifying East-West Gateway. If the person of responsible charge is found to not be a full-time employee of the LPA, it will result in the loss of federal funds for this project. One employee can act as person of responsible charge for all three phases.

| Name: Brad Temme, PE  |
|---|
| Signature:  |
| Person of responsible charge – right of way acquisition phase |
| Name: Brian Faust, IFAS                                       |
| Signature: Buen Faux  |
| Person of responsible charge – construction phase             |
| Name: Stephen Noonan, PE                                      |
| Signature: Mm   |

# F. Title VI Certification

The Project Sponsor shall comply with all state and federal statutes relating to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000d and §2000e, et seq.), as well as any applicable titles of the "Americans with Disabilities Act" (42 U.S.C. §12101, et seq.). In addition, if the Grantee is providing services or operating programs on behalf of the Department or the Commission, it shall comply with all applicable provisions of Title II of the "Americans with Disabilities Act".

The undersigned representative of the Project Sponsor hereby certifies that he/she has policies and procedures in place to comply with Title VI of the Civil Rights Act of 1964.

Name of Title VI Coordinator Michael Valenti

Title VI Coordinator Signature

# G. Right-of-Way Acquisition

To be completed by Missouri project sponsors only.

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) have the right and responsibility to review and monitor the acquisition procedures of any federally funded transportation project for adherence to <a href="The Uniform Relocation Assistance">The Uniform Relocation Assistance</a> and Real Property Acquisition <a href="Policies Act of 1970">Policies Act of 1970</a>." Those projects found in non-compliance may jeopardize all or part of their federal funding.

- A. The Project Sponsor hereby certifies that ANY right of way, and/or permanent or temporary easements necessary for this project, obtained prior to this application, were acquired in accordance with <u>The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</u>.
- B. The Project Sponsor also certifies that any additional right of way, and/or permanent or temporary easements, subsequently required to complete the project, will be acquired according to <a href="https://example.com/The Uniform Relocation Assistance">The Uniform Relocation Assistance</a> and Real Property Acquisition Policies Act of 1970.

City of St. Charles, Missouri

Sally A. Faith, Mayor

**Certification Signature** 

# H. Reasonable Progress

To be completed by Missouri project sponsors only.

Attached is a copy of the resonable progress policy adopted by the East-West Gateway COG Board of Directors.

The undersigned representative of the Project Sponsor hereby certifies that he/she has read this policy and understands its requirements. The representative acknowledges that failure to meet all of the reasonable progress requirements could result in federal funds being revoked and returned to the regional funding pool, as dictated by the policy.

City of St. Charles, Missouri

Vally y for

Certification Signature:



# Policy on Reasonable Progress

# Reasonable Progress

For projects or programs included in the Transportation Improvement Program, "reasonable progress" will have been made if the project has advanced to the point of obligating all federal funds programmed for that project in the current fiscal year, regardless of the phase of work (i.e., Preliminary Engineering (PE), Right of Way Acquisition (ROW), or Plans Specifications and Estimates (PSE)/Construction). If a project fails to obligate the programmed federal funds by September 30 of the current year, the funding will be forfeited and returned to the regional funding pot. Actual progress toward implementation is measured against the schedule submitted by the project sponsor in the project application.

# Policy Procedures and Enforcement

Projects that do not obligate all federal funds by the September 30 suspense date will be removed from the TIP, and the federal funds associated with those projects will be returned to the regional funding pool for redistribution. The removal of projects from the TIP will require no further Board action and the sponsor would have to repay any federal funds already spent if the funding is forfeited.

If a project is realizing delays that will put the federal funding at risk of forfeiture (i.e., not meet a September 30 deadline), the project sponsor will have the opportunity to ask for consideration of a "one-time extension" in their project schedule. The one-time extension can only be requested for the implementation/construction phase of the project. The extension request will only be considered once a year, and has to be made before June 1 of the current fiscal year of the TIP.

To be considered for this extension the sponsor has to demonstrate on all counts: a.) The delay is beyond their control and the sponsor has done diligence in progressing the project; b.) Federal funds have already been obligated on the project or in cases that no federal funds are used for PE and/or ROW acquisition, there has been significant progress toward final plan preparation; c.) There is a realistic strategy is in place to obligate all funds.

One-time extensions of up to three (3) months may be granted by East-West Gateway staff and one-time extensions greater than three (3) months, but not more than nine (9) months, will go to the Board of Directors for their consideration and approval. Projects requesting schedule advancements will be handled on a case-by-case basis(subject to available funding) and are subject to the Board adopted rules for TIP modifications.



# Policy on Reasonable Progress

# **Project Monitoring**

An extensive monitoring program has been developed to help track programmed projects and ensure that funding commitments and plans are met. Monthly reports are developed and posted on the East-West Gateway website, utilizing project information provided by the IDOT and MoDOT District offices. Additionally, project sponsors are contacted, at least every three months, by EWGCOG staff for project status interviews.

# Data Requirements Matrix

Route Length

Occupancy Rate (present)

Occupancy Rate (after)

Number of Vehicles

Hours of operation (daily)

alphp-hr (present)

αγρηρ-ητ (after)

Eligible Riders

Deadhead Factor

Capacity (present)

Capacity (after)

Average Number of Miles Driven

Average Age of Fleet

Auto Trips Eliminated per Day

Auto Trips Diverted per Day

Auto Access Trip Length

Annual Miles per Vehicle

Contact Gateway Staff for Details

Transit Improvements

System Start Up Transfer Center Vehicle Replacement

New Vehicle Park-Ride Facilities

Feeder System

# Shared Ride Services

Rideshare Programs Vanpool/carpool Programs Reverse Commute Program

Park-Ride Facilities

Other

# Demand Management Strategies Transportation Mgt Assoc

Transit Pass Subsidy
Transit Information/Marketing

Educational Programs

| × | L | × | × |   | × |   |   |   |   |   | L | L |   |   | $\downarrow$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| × | × | × | × | × | × |   | × | × | × | × |   |   |   |   |              |
| × | × | × | × | × | × |   | × | × | × | × |   |   |   |   |              |
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# Data Requirements

Matrix (continued)

Traffic Flow Improvements

Traffic Signal Interconnect Traffic Signal Replacement New Traffic Signals Signal Controller Upgrades

Intersection Improvements Roadway Bottleneck Elimination

S

Other

Pedestrian & Bicycle Improvement

Bicycle Parking Improvements

Bicycle Lanes

Pedestrian Ways Education Program

Other

Inspection Maintenance

Roadside Emission Testing Enhanced I-M Program

Mechanic Training Program

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| × | × | × | × | × | × |         |   |   |   |   |   |   |   |        |   |   |   |               |   |   |
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|   |   |   |   |   |   |         |   |   |   | × | × | × | × |        |   |   |   |               |   |   |
|   |   |   |   |   |   | ×       | × |   |   |   |   |   |   | ×      |   |   | × | ×             | × |   |

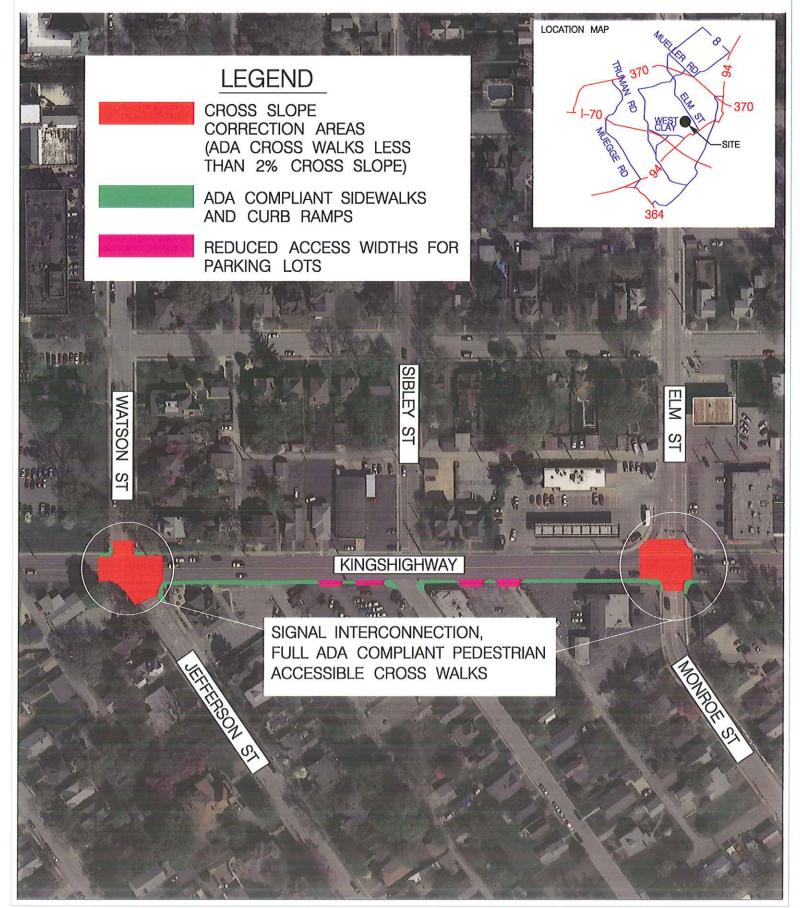
Auto Trips Eliminated per Day
Average Delay per vehicle (after)
Average Delay per vehicle (present)
Avg Daily Traffic (after)
Avg Daily Traffic (present)
Capacity (after)
Capacity (present)
Households Affected
Prosted Speed Limit
Project Length
Project Length
Speed (after)
Speed (after)
Speed (after)
Speed (present)
Speed (present)
Speed (present)

Auto Trips Diverted per Day

Contact Gateway Staff for Details

# CITY OF ST. CHARLES KINGSHIGHWAY IMPROVEMENTS PROJECT





# CITY OF ST. CHARLES, MO KINGSHIGHWAY CMAQ PROJECT

**ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COST** 

| DESCRIPTION  | UNITS      | QUANTITY | UNIT PRICE            | TOTAL PRICE  |  |  |
|--|------------|----------|-----------------------|--------------|--|--|
| REMOVAL OF IMPROVEMENTS                                  | L.S.       | 1        | \$10,000.00           | \$10,000.00  |  |  |
| SIDEWALK (4" THICK)                                      | S.Y.       | 292      | \$37.50               | \$10,950.00  |  |  |
| PAVED APPROACHES   | S.Y.       | 312      | \$60.00               | \$18,720.00  |  |  |
| LINEAR GRADING, CLASS 1                                  | STA        | 11       | \$800.00              | \$8,800.00   |  |  |
| CURB RAMPS   | S.Y.       | 231      | \$125.00              | \$28,875.00  |  |  |
| 24" SOLID WHITE PAINT                                    | L.F.       | 85       | \$6.00                | \$510.00     |  |  |
| 6" SOLID WHITE PAINT                                     | L.F.       | 889      | \$4.00                | \$3,556.00   |  |  |
| TRAFFIC CONTROL  | L.S.       | 1        | \$15,000.00           | \$15,000.00  |  |  |
| 4" TYPE 1 AGGREGATE FOR BASE                             | S.Y.       | 523      | \$8.00                | \$4,184.00   |  |  |
| CROSSWALK CORRECTION SLOPES LESS THAN 2% (ADA COMPLIANT) | L.S.       | 1        | \$15,000.00           |              |  |  |
| CURB   | L.F.       | 818      |                       | \$15,000.00  |  |  |
| SIGNING  | L.S.       | 1        | \$25.00<br>\$3,000.00 | \$20,450.00  |  |  |
| CONSTRUCTION SURVEYING & STAKING                         | L.S.       | 1        |                       | \$3,000.00   |  |  |
| SODDING  | S.Y.       | 121      | \$5,000.00            | \$5,000.00   |  |  |
| 8' POST SIGNAL   | 5.1.<br>EA | 5        | \$12.50               | \$1,512.50   |  |  |
| ADA PUSHBUTTONS  | EA         | 16       | \$1,000.00            | \$5,000.00   |  |  |
| COUNTDOWN TYPE PEDESTRIAN HEADS                          | EA         | 8        | \$250.00              | \$4,000.00   |  |  |
| PULL BOXES   | EA         | 5        | \$350.00              | \$2,800.00   |  |  |
| CONDUIT, 3" PUSHED                                       | L.F.       | 50       | \$1,200.00            | \$6,000.00   |  |  |
| CONDUIT, 3" TRENCHED                                     | L.F.       |          | \$20.00               | \$1,000.00   |  |  |
| SIGNAL WIRE  |            | 132      | \$15.00               | \$1,980.00   |  |  |
| NEW SIGNAL CONTROLLERS                                   | L.F.       | 930      | \$1.50                | \$1,395.00   |  |  |
| VIDEO DETECTION SYSTEM                                   | EA         | 2        | \$5,000.00            | \$10,000.00  |  |  |
| SIGNAL INTERCONNECTION                                   | EA         | 2        | \$30,000.00           | \$60,000.00  |  |  |
| REPLACING INLET TOPS                                     | L.S.       | 1        | \$3,000.00            | \$3,000.00   |  |  |
|  | EA         | 11       | \$1,500.00            | \$16,500.00  |  |  |
| MORILIZATION (6% OF CONSTRUCTION COST)                   | L.S.       | 1        | \$2,000.00            | \$2,000.00   |  |  |
| MOBILIZATION (6% OF CONSTRUCTION COST)                   | L.S.       | 1        | \$15,553.95           | \$15,553.95  |  |  |
|  | }          |          | AL COST =             | \$274,786.45 |  |  |
|  | }          | 20% CON  | TINGENCY              | \$54,957.29  |  |  |
|  | L          | TOTA     | L COST                | \$329,743.74 |  |  |

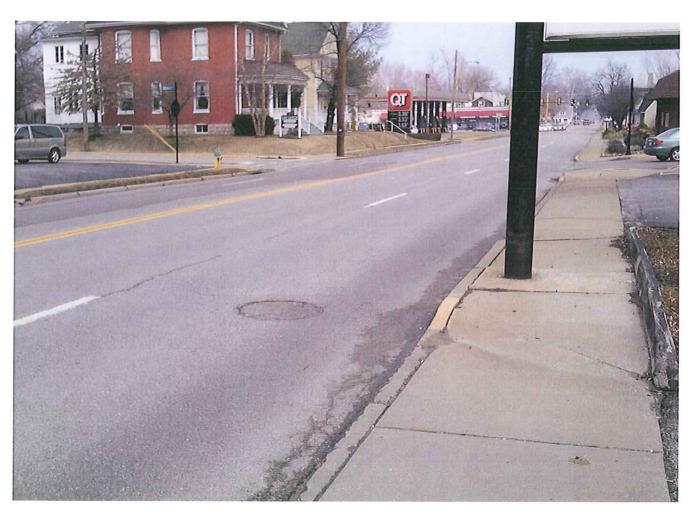
# Impacts of Interconnecting Existing Traffic Signals on Kingshighway (Signals at Monroe Street and Jefferson Street)

|                                       | After | Present |
|---------------------------------------|-------|---------|
| Average Delay Per Vehicle (sec / veh) | 8.47  | 15.52   |
| Average Daily Traffic (veh)           | 6830  | 6830    |
|                                       |       |         |
| Posted Speed Limit (mph)              | 25    | 25      |
| Project Length (mi)                   | 0.15  | 0.15    |
| Average Speed (mph)                   | 16    | 12      |
| Stops Per Vehicle                     | 0.4   | 0.63    |
| CO Emissions (kg)                     | 1.91  | 2.47    |
| NOx Emissions (kg)                    | 0.37  | 0.48    |
| VOC Emissions (kg)                    | 0.44  | 0.57    |
|                                       |       |         |

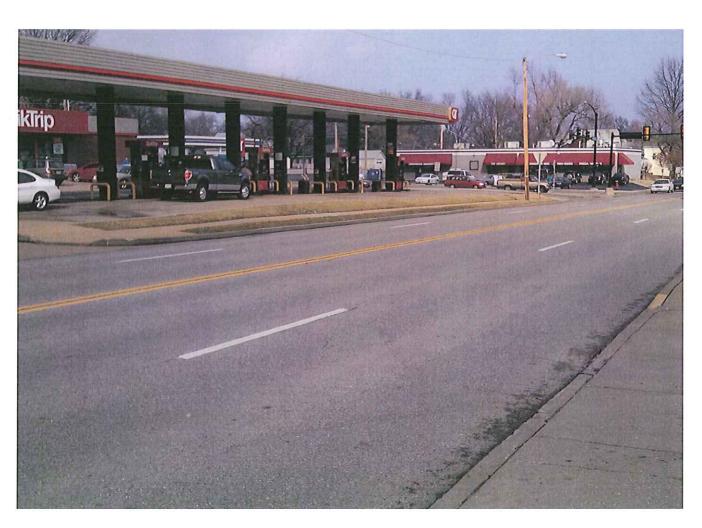
Results generated by the macroscopic software application called Synchro 7 EWGCOG will calculate emission reductions















| <u> 18. F</u> | RO | GR | AM | LO | 3 |
|---------------|----|----|----|----|---|
|               |    |    |    |    | _ |

| Prepared By Rick Ltwis                    | Date: | 2,23,12 |
|---|-------|---------|
| Approved By Rock Liwis                    |       | 2,23,12 |
| Intersection Name KWGSHISHWAY 4 ELH ST./M | NOOR  |         |

# UTILITIES - ACCESS

# PHASE DATA - VEHICLE TIMINGS

| Basic Times          | Phase:     | 1 2   | 3   | 4  | 5   | 6   | 7  | 8        | 9    | 10  | 11 | 12        | 13 | 14 | 15    | 16 |
|----------------------|------------|-------|-----|----|-----|-----|----|----------|------|-----|----|-----------|----|----|-------|----|
| Minimum Green        | : <u>"</u> | Z ]   | _ 0 | 7  | 0   | 7   | 0  | Ò        | (53) | 555 |    |           |    |    | 10    | 10 |
| Passage Time         | : 2        | 7 22  | 0   | 27 | D   | 27  | D  | 0        |      | _   | _  |           |    |    | —     | -  |
| Maximum No 1         | : ī        | 5 4   |     | 25 | O   | (2) | 0  | O        |      |     |    | _         |    |    | -     |    |
| Maximum No 2         | . ন        | 5 40  | 0 0 | 75 | 7)  | 60  | 0  | 0        |      |     | _  | -         |    |    |       |    |
| Yellow Change        | . 7        | 10 10 | 40  | 40 | 40  | 40  | 40 | 40       | -    | _   |    | $\dot{-}$ | —  |    | -     |    |
| Red Clearance        | <u>7</u>   |       | 0   | 0  | -1- | 6   | 0  | 0        | .—   | -   |    | —         |    |    |       |    |
| Tion bloat allooming | 7          |       |     |    | _0_ |     |    | <u>U</u> | -    | -   | —  | -         | -  |    | -     | _  |
| Density Times        | Phase:     | 1 2   | 3   | 1  | 5   | 6   | 7  |          | 0    | 40  |    | 40        |    |    |       |    |
| Seconds/Actuation.   |            | 1 4   | J   | 4  | 0   | O   | 1  | 8        | 9    | 10  | 11 | 12        | 13 | 14 | 15    | 16 |
| Maximum Initial      |            |       |     |    | -   | _   |    |          |      |     |    | _         | -  |    |       |    |
|                      |            |       | _   |    | —   |     |    |          |      |     |    |           |    |    |       |    |
| Time B4 Reduction    |            |       |     |    |     |     |    |          |      |     |    |           |    |    |       |    |
| Cars B4 Reduction.   |            |       |     |    |     |     |    | -        | -    |     |    |           |    |    |       |    |
| Time To Reduce       |            |       |     |    |     |     |    |          |      |     |    |           |    |    |       |    |
| Minimum Gap          |            |       |     |    |     |     |    |          |      |     |    |           |    |    | G-007 |    |
|                      |            |       |     |    |     |     | _  |          |      |     |    |           | -  |    |       |    |

# PHASE DATA - PEDESTRIAN TIMINGS & CONTROL

| Walk                       | nase:<br>: | 0 | 7        | 3       | 4      | 5       | 6       | 7     | 8<br>O  | 9    | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----------------------------|------------|---|----------|---------|--------|---------|---------|-------|---------|------|----|----|----|----|----|----|----|
| Pedestrian Clearance       | :          | J | <u>b</u> | _0      | 9      | _0      | 0       | 0     | 0       |      |    |    |    |    |    | _  | _  |
| Pedestrian Control Ph      | ase:       | 1 | 2        | 3       | 4      | 5       | 6       | 7     | 8       | 9    | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Extended Pedestrian Clear. |            |   | _        | -       |        |         | _       | —     | -       |      |    | -  |    |    |    |    | -  |
| Act Rest In Walk           | i          | - | _        |         | -      |         | _       | —     | -       |      | _  | _  | -  |    |    |    |    |
| AUCTION III Walk           |            | _ | Pe       | destria | n Cont | rol Ent | rv: "1" | = Yes | 8 "O" = | - No | .— |    | -  | -  |    | S  |    |

# PHASE DATA - VEHICLE CONTROL

| Veh Control   | Phase:   | 1 | 2 | 3 | 4 | 5                     | 6 | 7 | 8 | 9 | 10 | 11  | 12          | 13 | 14  | 15 | 16 |  |
|---------------|----------|---|---|---|---|-----------------------|---|---|---|---|----|-----|-------------|----|-----|----|----|--|
| Non-Lock Me   | emory:   | 0 | O | 0 | 0 | 0                     | 0 | 0 | 0 |   |    | • • |             |    | 1.7 | 10 | 10 |  |
| Dual Entry    |          | 0 | 5 | 0 | 5 | 0                     | 0 | 0 | Ũ | - |    |     |             |    | _   | -  | _  |  |
| Last Car Pas  | sage:    |   |   | - |   |                       |   |   |   |   | _  | _   |             |    |     | -  |    |  |
| Conditional S | Service: |   |   |   | - |                       |   |   |   |   | -  |     | <del></del> |    | -   | -  | _  |  |
|               | ous Gap: |   |   | 1 | - | -                     |   |   |   |   |    | _   | -           |    | _   | _  |    |  |
| Tro Omnandino | ouo oup  |   | - |   |   | Professional Contract |   | - |   |   |    |     |             |    |     |    |    |  |

Vehicle Control Entry: "1" = Yes & "0" = No

# PHASE DATA - GENERAL CONTROL

| General Control Phase: Initialization               | 1-030                                      | 2<br>3<br>0<br>3<br>3<br>3    | 30000    | 4-0000 | 5<br>0<br>0<br>0<br>0                           | 67000     | 7<br>0<br>0<br>0 | 80000<br>0000                       | 9               | 10                                 | 11                | 12      | 13   | . 14 | 15<br>  | 16                |
|---|--|-------------------------------|----------|--------|---|-----------|------------------|-------------------------------------|-----------------|------------------------------------|-------------------|---------|--|------|---------|-------------------|
| Codes   |  | 0<br>10N<br>10N<br>10N<br>10N | NE<br>NE | s      | 1<br>INACT<br>TO NA<br>1 CAL<br>1 CAL           | A 1<br>.L | TO<br>MII        | 2<br>RED<br>D NA II<br>NIMUM<br>PED |                 | 3<br>YELLO<br>TO BO<br>MAXIM<br>NA | TH<br>IUM         | 5       | 4<br>REEN<br><br>SOFT<br>NA+               |      |         |                   |
|   |  | I                             | PHAS     | E DAT  | ra - Sec  | ğnév      | ĆĖ ČĆ            | NTRO                                | Ļ               |                                    |                   |         |  | £    |         |                   |
| Sequence Control Phase: Phase Omit: Phase - Yellow: | 1<br>—                                     | 2<br>—                        | 3<br>    | 4      | 5<br>—  | 6         | 7<br>—           | 8                                   | 9               | 10                                 | 11                | 12<br>— | 13<br>—                                    | 14   | 15<br>— | 16<br>—           |
| Codes   |  | 0<br>1001<br>1001             |          |        | 01 TO 1<br>Phase Is<br>Phase Y                  | omit      | ted By           | /# - Ph                             |                 |                                    | ellow/            |         |  |      | ¥<br>Š  |                   |
| •   |  | PH                            | ASE C    | ATA    | - AËH D   | ETEC      | TOR              | CONTR                               | ÒĽ              |                                    |                   |         |  |      |         |                   |
| Control Detector:  Assigned Phase                   | _  | 2<br>                         |          | 4      | 5   | 6         | 7<br>—<br>—      | 8                                   | 9               | 10<br>—<br>—<br>—                  | 11<br>—<br>—<br>— | 12      | 13   | 14   | 15<br>  | 16<br>—<br>—<br>— |
|   | 17<br>———————————————————————————————————— |                               |          |        | 21  | 22        | 23               | 24                                  | 25              | 26<br>                             | 27                | 28      | 29<br>———————————————————————————————————— | 30   | 31      | 32                |
| Codes   | N  | 0<br>ORM V<br>NON<br>NON      | E        | ]      | 1<br>NORM P<br>Detector<br>Detector<br>Phase Is | Is Ass    | signed<br>witche | d To #                              | Phase<br>! - Ph | iase V                             | When              |         | 4<br>BAR B<br>Assigne                      | d    |         | ¥                 |

# COORD DATA - MODE

| Control                            | i | Codes: | 0         | 1        | 2     | 3   | 4   | 5   |
|------------------------------------|---|--------|-----------|----------|-------|-----|-----|-----|
| Operation:                         | 1 |        | FRE       | AUT      | MAN   | ••• | *** | -   |
| Mode:                              | 0 |        | PRM       | YLD      | PYL   | POM | SOM | FAC |
| Maximum                            |   |        | INH       | MX1      | MX2   |     |     |     |
| Correction:                        | 2 |        | DW        | MDW      | SWY   | SW+ | *** |     |
| Offset (?? Of Green):              | 0 |        | BEGIN     | END OF ( | BREEN |     |     |     |
| Force:                             | 0 |        | PLAN      | CYCLE T  | ME    |     |     |     |
| Max Dwell Time:                    | 0 |        | Time In S | Seconds  |       |     |     |     |
| Yield Period:                      | 0 |        | Time In S | Seconds  |       |     |     |     |
| Manual Pattern (Dial/Split/Offset) |   |        |           |          |       |     |     |     |

# **COORD DATA - TIMING PLANS**

| Control Timing Plan: Cycle Length | D1/S1<br>50 | D1/S2        | D1/S3 | D1/S4 | D2/S1 | D2/S2 | D2/S3 | D2/S4 |
|-----------------------------------|-------------|--------------|-------|-------|-------|-------|-------|-------|
| Phase 01 Time/Mode:               | 11/3        | /            | /_    | /_    | 13/3  |       | _7_   | /_    |
| Phase 02 Time/Mode:               | <u>14/I</u> | /_           | /_    | /_    | 2411  | /_    | /_    | /_    |
| Phase 03 Time/Mode:               | 016         | /_           | /_    | /_    | 0/6   | /_    | /_    | /_    |
| Phase 04 Time/Mode:               | 2113        | /_           | /_    | /_    | 23/3  | /_    | /_    | /_    |
| Phase 05 Time/Mode:               | 016         | /_           | /_    | /_    | D16   | /_    | /_    | /_    |
| Phase 06 Time/Mode:               | 29/1        |              | /_    | /_    | 37/1  | /_    | /_    | /_    |
| Phase 07 Time/Mode:               | 016         | /_           | /_    | /_    | 016   | /_    | /_    | /_    |
| Phase 08 Time/Mode:               | 016         | /_           | /_    | /_    | 016   | /_    | /_    | /_    |
| Phase 09 Time/Mode:               | /_          |              | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 10 Time/Mode:               | /_          |              | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 11 Time/Mode:               |             |              | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 12 Time/Mode:               | /_          | /_           | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 13 Time/Mode:               | /           | /_           | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 14 Time/Mode:               | /           | /            | /_    | /_    | /_    | /_    | /_    | /_    |
| Phase 15 Time/Mode:               |             | /_           | /_    | /_    | /_    | 1_    | /     | _/_   |
| Phase 16 Time/Mode:               | /_          | /_           | /_    | 1_    | /_    | /_    | /_    | /_    |
| Offset 1:                         | 0           |              |       |       | 0     | (     |       |       |
| Offset 1 Alt Sequence:            | 6           | V- 302-0-101 |       |       | 0     | -     |       |       |
| Offset 1 Pattern Mode:            |             |              |       |       |       |       |       |       |
| Offset 1 Ring 2 Lag:              |             |              |       |       |       |       |       |       |
| Offset 1 Ring 3 Lag:              |             |              |       |       |       |       |       |       |
| Offset 1 Ring 4 Lag:              |             |              |       |       |       |       |       | -     |
| Offset 2                          |             |              |       |       |       |       |       |       |
| Offset 2 Alt Sequence:            |             |              |       |       |       |       |       |       |
| Offset 2 Pattern Mode:            |             |              |       | -     |       |       |       | -     |
| Offset 2 Ring 2 Lag:              |             |              |       |       |       | -     |       |       |
| Offset 2 Ring 3 Lag:              |             |              |       |       |       |       |       |       |
| Offset 2 Ring 4 Lag:              |             |              |       |       |       | -     |       |       |
| Offset 3:                         |             |              |       |       |       |       |       |       |
| Offset 3 Alt Sequence:            |             | -            |       |       | -     |       |       |       |
| Offset 3 Pattern Mode:            |             |              |       |       |       |       |       |       |
| Offset 3 Ring 2 Lag:              |             |              |       |       |       |       | -     |       |
| Offset 3 Ring 3 Lag:              |             |              | -     |       |       |       | -     |       |
| Offset 3 Ring 4 Lag:              | -           |              |       |       |       |       | -     |       |

# COORD DATA - TIMING PLANS

|   | Control                                  | Timing Plan: | D3/S1         | D3/S2       | D3/S3         | D3/S4         | D4/S1            | D4/S       | 2 D4/S3      | D4/S4       |
|---|--|--------------|---------------|-------------|---------------|---------------|------------------|------------|--------------|-------------|
|   | Cycle Length<br>Phase 01 Time/I          |              | 1913          |             |               |               |                  |            | -            |             |
|   | Phase 02 Time/N                          |              | 並江            | ';          | ';            | -/-           | -/-              | /-         | !,-          | · —/,-      |
|   | Phase 03 Time/N                          |              | 017           | ;           | -;-           | -,-           | ',               | ',-        | ',           | ·/,-        |
|   | Phase 04 Time/N                          |              | 01L<br>29-13  |             | -;-           | -',-          | -;-              | ';-        | ',           | ·',         |
|   | Phase 05 Time/N                          | /lode:       | 0/6           |             | -i            | -;-           | —;—              | ';-        | ';           | ';          |
|   | Phase 06 Time/N                          |              | 561]          | _/_         |               |               | -;-              |            | ;            | ;           |
|   | Phase 07 Time/N                          |              | 016           | /_          | /_            | $\equiv_{I}$  |                  |            | ;-           | ;-          |
|   | Phase 08 Time/M                          |              |               |             | /_            | /_            | /_               |            | :-           | <u>_</u>    |
|   | Phase 09 Time/N                          |              | /_            | /           | /_            | 1_            | /_               |            | :-           |             |
|   | Phase 10 Time/M                          |              | /_            | /_          | /_            | /_            | /_               | /_         |              |             |
|   | Phase 11 Time/M                          |              | /_            | _/_         | /_            | /_            | /_               | /_         | /_           |             |
|   | Phase 12 Time/M                          |              | !_            | _/_         | /_            | /_            | /_               | /_         | /_           | /_          |
|   | Phase 13 Time/M                          |              | — <i>!</i> —  | /_          | /_            | /_            | /_               | /_         | /_           | /_          |
|   | Phase 14 Time/M                          |              | _!_           | /_          | /_            | /             | /_               | /_         | /_           | /_          |
|   | Phase 15 Time/M                          |              | !_            | !_          | !_            | /_            | /_               | /_         | /_           | /_          |
|   | Phase 16 Time/M                          |              | /_            | /_          | /_            | /_            | /_               | /_         | /_           | /_          |
|   | Offset 1 Time                            | :            | 0             |             | -             | •             |                  |            |              | -           |
|   | Offset 1 Alt Seque<br>Offset 1 Pattern M | lode         | 0             |             |               |               |                  |            |              | -           |
|   | Offset 1 Ring 2 La                       |              |               |             |               | -             |                  |            |              |             |
|   | Offset 1 Ring 3 La                       |              | (             |             |               |               |                  |            |              |             |
|   | Offset 1 Ring 4 La                       |              |               |             |               |               |                  | . —        |              |             |
|   | Offset 2                                 |              |               |             | -             |               | -                |            |              |             |
|   | Offset 2 Alt Seque                       | nce '        | -             | -           |               |               | -                | -          |              |             |
|   | Offset 2 Pattern M                       | ode .        |               |             | 0             |               |                  |            |              | ·           |
|   | Offset 2 Ring 2 Lag                      |              |               | 3           |               |               |                  | -          |              |             |
|   | Offset 2 Ring 3 Lag                      | j            |               |             |               |               |                  |            | 0            |             |
|   | Offset 2 Ring 4 Lag                      | J:           |               |             |               | -             | -                |            | -            |             |
|   | Offset 3                                 |              | 7012-2-2 720  |             |               |               | A                |            | -            |             |
|   | Offset 3 Alt Sequer                      | nce:         |               |             |               | -             |                  | -          | -            |             |
|   | Offset 3 Pattern Mo                      |              |               |             |               |               | -                |            |              |             |
|   | Offset 3 Ring 2 Lag                      | ]::          |               |             |               |               |                  |            |              | <del></del> |
|   | Offset 3 Ring 3 Lag                      | }t           |               |             | //            |               | 21.32            |            |              |             |
|   | Offset 3 Ring 4 Lag                      | J:           |               |             |               |               |                  |            |              |             |
|   |  |              |               |             |               |               | <del></del>      |            |              |             |
| ( | <u> Codes</u>                            |              |               |             |               |               |                  |            |              |             |
|   | Phase Mode                               | :            | 0-Actuated    | 200         | 1-Coord Pi    |               | 2-Min Rec        |            | 3-Max Rec    |             |
|   |  |              | 4-Ped Rec     |             | 5-Max+Ped     | i Recall      | 6-Phase Omitte   | d :        | 7-Dual Coord | Phase       |
|   | Pattern Mode                             | :            | 00-15 (Unit I |             |               |               |                  |            |              |             |
|   | Alternate Sequence                       | ·:           | 0-Normal / 1  | -Perm / 2-\ | ield / 3-Pern | n Yield / 4-P | erm Omit / 5-Seq | Omit / 6-F | Full Act     |             |
|   | R# LAG                                   | ·····::      | Time In Seco  | onds Of Th  | e Ring Offse  | t To Lcl Cycl | le 0 When Not Ba | rrier Lock | ed To Ring 1 |             |
|   |  |              |               |             |               |               |                  |            |              |             |

| 18.PROGRAM LOG  | E                       | PAC 300                               |
|---|-------------------------|---------------------------------------|
| Prepared By Rick LEWIS  | Date:                   | 2,23,12                               |
| Approved ByRick Ltw15   | Date:                   | 2,23,12                               |
| Intersection Name KINSSHISHNAY + JEFFERSOW / W  | VATSON                  | )                                     |
| UTILITIES - ACCESS  | 3(                      | 608 MID                               |
| Access Code   |                         |                                       |
| PHASE DATA - VEHICLE TIMINGS  | nez                     |                                       |
| Basic Times         Phase:         1         2         3         4         5         6         7         8         9         10           Minimum Green         :         7 | 11 12<br>— — —<br>— — — | 13 14 15 16<br>— — — — —<br>— — — —   |
| Density Times         Phase:         1         2         3         4         5         6         7         8         9         10           Seconds/Actuation   | 11 12                   | 13 14 15 16<br>— — — — —<br>— — — — — |
| PHASE DATA - PEDESTRIAN TIMINGS & CONTROL   |                         |                                       |
| Pedestrian Times         Phase:         1         2         3         4         5         6         7         8         9         10           Walk   | 11 12                   | 13 14 15 16                           |
|   | 11 12<br>— —<br>— —     | 13 14 15 16                           |
| PHASE DATA - VEHICLE CONTROL  |                         |                                       |
| Veh Control         Phase:         1         2         3         4         5         6         7         8         9         10           Non-Lock Memory </td <td>11 12</td> <td>13 14 15 16</td>  | 11 12                   | 13 14 15 16                           |

# PHASE DATA - GENERAL CONTROL

| General Control Phase: Initialization  | 1 03         | 2<br>3<br>0<br>3<br>—                         |                   | 4 100 | 5<br><u>0</u><br><u>3</u>                 | 6303              | 7000              | 8<br>0<br>0                       | 9 —  | 10   | 11<br>—<br>—<br>— | 12<br>—<br>—<br>—      | 13                          | 14   | 15      | 16                |
|--|--------------|---|-------------------|-------|---|-------------------|-------------------|-----------------------------------|--|--|-------------------|------------------------|-----------------------------|------|---------|-------------------|
| Codes  |              | 0<br>// 00//<br>// 00//<br>// 00//<br>// 00// | IE<br>IE          | ï     | 1<br>INACTIV<br>TO NA<br>1 CALI<br>1 CALI | l<br>-            | OT<br>//IM        | 2<br>RED<br>NA II<br>IIMUM<br>PED | 1  | 3<br>YELLO<br>O BO<br>MAXIMI<br>NA         | TH                | GF<br>-<br>S           | 4<br>REEN<br><br>OFT<br>NA+ |      |         |                   |
| 2  |              | F   | PHASE             | DAT   | A - SEQ                                   | UEN               | ÇE CO             | NTROI                             | ŧ.   |  |                   |                        |                             | (1)  |         |                   |
| Sequence Control Phase: Phase Omit   | 1            | 2   | 3                 | 4     | 5   | 6                 | 7<br>—            | 8                                 | 9  | 10<br>—                                    | 11<br>—           | 12<br>—                | 13                          | 14   | 15<br>— | 16<br>—           |
| Codes  |              | 0<br>100<br>100<br>100                        |                   |       | 01 TO 16<br>Phase Is<br>Phase Y           | Omi               | tted By           | # - Ph                            | ase O<br>/# - P                            | n<br>hase Y                                | ellow/            |                        |                             |      |         |                   |
|  |              | PH  | ASE D             | ATA   | - VEH D                                   | ĔŢĒĊ              | TOR               | CONTR                             | OL   |  |                   |                        |                             |      |         |                   |
| Control Detector:  Assigned Phase  | 1            | 2<br>   | 3                 | 4<br> | 5   | 6                 | 7<br>             | 8 —                               | 9 —  | 10   | 11<br>            | 12                     | 13                          | 14 — | 15      | 16                |
| Control Detector:  Assigned Phase  Operation Mode  Switch  Extend Time  Delay Time | 17<br>—<br>— |   | 19<br>—<br>—<br>— | 20    | 21  | 22<br>—<br>—<br>— | 23<br>—<br>—<br>— | 24<br>—<br>—<br>—                 | 25<br>———————————————————————————————————— | 26<br>———————————————————————————————————— | 27                | 28<br>—<br>—<br>—<br>— | 29<br>—<br>—<br>—           | 30   | 31      | 32<br>—<br>—<br>— |
| Codes  | )            | 0<br>NORM<br>NOI<br>NOI                       | I VEH<br>NE       |       | NORM F<br>Detecto<br>Detecto<br>Phase I   | r Is A            | ssigne<br>Switch  | ed To                             | Phas                                       | hase                                       | Wher              |                        | 4<br>BAR B<br>Assign        |      |         | 5                 |

# COORD DATA - MODE

| Control                            | i  | Codes: | 0            | 1        | 2   | 3   | 4   | 5   |
|------------------------------------|----|--------|--------------|----------|-----|-----|-----|-----|
| Operation:                         | l  |        | FRE          | AUT      | MAN |     |     |     |
| Mode                               | 0  |        | PRM          | YLD      | PYL | POM | SOM | FAC |
| Maximum                            |    |        | INH          | MX1      | MX2 |     | *** |     |
| Correction                         | 7- |        | DW           | MDW      | SWY | SW+ |     |     |
| Offset (?? Of Green)               | 0  |        | <b>BEGIN</b> | END OF ( |     |     |     |     |
| Force:                             | 0  |        | PLAN         | CYCLE T  | IME |     |     |     |
| Max Dwell Time:                    | 0  |        | Time In S    | Seconds  |     |     |     |     |
| Yield Period:                      | 0  |        | Time In S    | Seconds  |     |     |     |     |
| Manual Pattern (Dial/Split/Offset) |    |        |              |          |     |     |     |     |

# **COORD DATA - TIMING PLANS**

|                 |              |                     |   |              |                  |   | 20101 | D0/00      | D0/00 | D2/S4       |
|-----------------|--------------|---------------------|---|--------------|------------------|---|-------|------------|-------|-------------|
| Control         | Timing Plan: | D1/S1               | D1/S2                                       | D1/S3        | D1/S4            | • | D2/S1 | D2/S2      | D2/S3 | DZ/34       |
|                 | th:          | 80                  | 70  |              |                  |   | 173   |            |       | <del></del> |
|                 | ime/Mode:    | <u>i713</u>         | 14/3<br>35/1<br>0/0<br>21/0<br>14/3<br>35/1 | ·—/,—        | ',               |   | 拉江    | <u>',-</u> | -';-  | ';          |
|                 | ime/Mode:    | 4011                | 35/1  | !-           | ',               |   |       | ';         | -,-   | ',          |
|                 | ime/Mode:    | <u>016</u><br>2310  | 0/0   | ',           | ',               |   | 13/0  | -',-       | ';    | ',          |
|                 | ime/Mode:    | 2310                | 21/0<br>14/3<br>35/1                        | ',           | !,               |   | 11/3  | ';         | ;-    | ',          |
|                 | ime/Mode::   | 1713                | 11/2  | !,           | !-               |   |       | -',-       | -,-   | ';          |
|                 | ime/Mode:    | 4011                | 35/1  | —!.—         | ',               |   | 40/1  | ';         | ',    | -,-         |
|                 | ime/Mode:    | <u>0</u> 10<br>2310 | 010   | !,           | ',               |   | 010   | ',         | ';-   | -',-        |
|                 | ime/Mode:    |                     | <u>6110</u>                                 | ',_          | ',               |   | 2310  | ',         | ;     | ',-         |
|                 | ime/Mode:    | !_                  | — <u>'</u> ,—                               | !            | ',-              |   | ',    | ';         | ;-    | -;-         |
|                 | ime/Mode:    | !_                  | !   | ',_          | ',               |   |       | ',         | -;-   | -,-         |
|                 | ime/Mode:    | !_                  | !   | ',           | ',               |   | ',    | ',         | ',    | -',-        |
|                 | ime/Mode:    | !_                  | !   | —! <u> —</u> | —',—             |   | ',    | ',         | ',    | ';          |
|                 | ime/Mode:    | !_                  | <u>!-</u>                                   | !            | !,               |   | ';    | ';         | ;-    | ';          |
|                 | ime/Mode:    | /_                  | !_  | <u>!</u>     | !,               |   | ',    | ';         | ;-    | ;           |
| 100100000 00000 | ime/Mode:    | !_                  | !   | !,           | ',_              |   | ',    | ',         | ;-    | ;           |
| Phase 16 T      | ime/Mode:    | /_                  | 1_  | /_           | /_               |   | -5-   | ′_         |       |             |
|                 | :            | ()                  |   |              |                  |   | 4     |            | -     | -           |
|                 | Sequence:    | 4                   |   |              |                  |   |       | -          |       | -           |
|                 | ttern Mode:  |                     |   |              |                  |   | -     |            |       | -           |
|                 | ng 2 Lag:    |                     |   |              |                  |   |       |            |       |             |
|                 | ng 3 Lag:    |                     |   |              |                  |   |       |            | 0     |             |
| Offset 1 Ri     | ng 4 Lag:    |                     |   |              |                  |   |       |            | -     |             |
|                 | :            |                     |   |              | 3. <del></del> 3 |   | -     |            |       |             |
|                 | Sequence:    |                     |   |              |                  |   |       |            |       |             |
|                 | ttern Mode:  |                     | -   |              |                  |   |       |            | · ·   |             |
|                 | ng 2 Lag::   |                     |   |              |                  |   |       |            |       |             |
|                 | ng 3 Lag:    |                     |   |              | -                |   |       |            |       |             |
|                 | ng 4 Lag:    |                     |   |              | ( <u> </u>       |   |       |            |       |             |
|                 |              |                     |   |              |                  |   | *     |            | -     |             |
|                 | Sequence:    | -                   |   |              | -                |   |       |            |       |             |
|                 | attern Mode: |                     |   |              |                  |   |       | -          |       | -           |
|                 | ng 2 Lag::   |                     |   |              |                  |   | -     |            |       |             |
|                 | ng 3 Lag::   |                     |   |              |                  |   | -     |            |       | -           |
| Offset 3 Ri     | ng 4 Lag:    |                     |   |              |                  |   |       | -          |       |             |
|                 |              |                     |   |              |                  |   |       |            |       |             |

# **GOORD DATA - TIMING PLANS**

4.2.

| Control                            | Timing Plan:                            | D3/S1         | D3/S2      | D3/S3             | D3/S4          | D4/S1                          | D4/S2        | D4/S3                     | D4/S4         |
|------------------------------------|---|---------------|------------|-------------------|----------------|--------------------------------|--------------|---------------------------|---------------|
| Cycle Length<br>Phase 01 Time/l    |   | 1713          |            |                   | <del></del>    | <del></del>                    |              |                           |               |
| Phase 02 Time/I                    |   | 4011          | <u> </u>   | — <u>;</u> —      | -';-           | -;-                            | ',           | ·';                       | -',-          |
| Phase 03 Time/I                    |   | 010           | _/_        |                   |                |                                |              | ;-                        | -;-           |
| Phase 04 Time/I                    |   | 6310          | /_         | /_                | _/_            | /_                             |              |                           |               |
| Phase 05 Time/N                    |   | 五/子           | /_         | /_                | /_             | /_                             | /_           |                           |               |
| Phase 06 Time/N                    |   | 401丁          | /_         | /_                | /              | /_                             | /_           | _/_                       | /_            |
| Phase 07 Time/N                    |   | 010           | /_         | /_                | /_             | /_                             | /_           | /_                        | /_            |
| Phase 08 Time/N                    |   | 23/0          | !_         | !_                | /              | /_                             | /_           | /_                        | /_            |
| Phase 09 Time/N                    |   | !             |            | <u>!-</u>         | !_             | /_                             | _/_          | /_                        | /_            |
| Phase 10 Time/N                    |   | !             | !          | !                 | <u>!-</u>      | !_                             | !_           | /_                        | /_            |
| Phase 11 Time/N<br>Phase 12 Time/N |   | ',            | !          | !,                | !              | !                              | !_           | /_                        | /_            |
| Phase 13 Time/M                    |   | ',            | ',         | !                 | !              | !                              | <u>!-</u>    | <u> </u>                  | !             |
| Phase 14 Time/M                    |   | !             | !          | ',                | ',             | !                              | '_           | !                         | _!_           |
| Phase 15 Time/M                    |   | !             | ',         | —' <u>,</u> —     | -/-            | ',                             | !            | -!-                       | /_            |
| Phase 16 Time/M                    |   | -';-          | ',         | ',                | ',             | -/-                            |              | -!-                       | !             |
| Offset 1 Time                      |   | <del></del>   | '-         | /_                | /              | /_                             | /_           | /_                        | /_            |
| Offset 1 Alt Seque                 |   | Ě             | -          |                   | -              | -                              |              |                           |               |
| Offset 1 Pattern N                 |   |               |            |                   | -              | 1                              |              |                           |               |
| Offset 1 Ring 2 La                 |   | <del></del>   | -          | ii <del></del> ii | -              | -                              |              |                           |               |
| Offset 1 Ring 3 La                 |   |               | -          | -                 |                | -                              |              |                           |               |
| Offset 1 Ring 4 La                 | ig::                                    |               |            |                   |                | -                              |              | -                         | ( <del></del> |
| Offset 2                           | :                                       |               |            |                   |                |                                |              | ¥                         | -             |
| Offset 2 Alt Seque                 |   |               |            |                   | 2              | ·                              |              |                           |               |
| Offset 2 Pattern M                 |   |               |            | 7-2               |                |                                |              |                           |               |
| Offset 2 Ring 2 La                 |   |               |            |                   | -              | 20.0                           |              |                           |               |
| Offset 2 Ring 3 La                 |   |               | -          |                   |                | -                              |              |                           |               |
| Offset 2 Ring 4 La                 |   |               |            | -                 |                | -                              |              |                           |               |
| Offset 3                           |   |               |            |                   |                | Page Control                   |              |                           |               |
| Offset 3 Alt Seque                 |   |               |            | -                 |                |                                |              |                           |               |
| Offset 3 Pattern M                 |   |               |            |                   | -              | •                              |              | -                         |               |
| Offset 3 Ring 2 La                 |   | -             |            |                   |                | -                              |              | -                         |               |
| Offset 3 Ring 3 La                 |   | -             | -          |                   |                |                                |              |                           |               |
| Offset 3 Ring 4 La                 | g:                                      |               |            |                   |                | -                              |              | -                         |               |
| Codes                              | ě                                       |               |            |                   |                |                                |              |                           |               |
| Phase Mode                         |   | 0-Actuated    |            | 1-Coord P         | haca           | 2-Min Rec                      | 2            | May Das                   |               |
| THUSO MOUG                         | ••••••••••••••••••••••••••••••••••••••• | 4-Ped Rec     |            | 5-Max+Pe          |                | 2-IVIIII Rec<br>6-Phase Omitte |              | -Max Rec<br>-Dual Coord I | Dhoos         |
| Pattern Mode                       | •                                       | 00-15 (Unit I | Data Has D |                   | u Nevali       | o-rhase Offilli                | su /         | יטומו הסטומן              | riiase        |
| Alternate Sequenc                  | e                                       |               |            |                   | m Yield / 1.D. | erm Omit / 5-Sec               | Omit / G E   | ull Act                   |               |
| R# LAG                             |   | Time In Seco  | onds Of Th | e Ring Offse      | et To Lel Cvel | le 0 When Not Ba               | errier Locke | d To Ring 1               |               |
| = .•                               |   |               | and Of the | o rung onse       | A TO LOI OYO   | O WINGH NOUD                   | ATTICL LUCKE | a rorang r                |               |

|   |  |           | TIME BASE    | DATA          | MISCELLANEOUS     |   |
|---|--|-----------|--------------|---------------|-------------------|---|
|   |  | 0:0<br>TL | WEEK         | <u>2</u><br>1 | 00:00 = Event Tir | (Begin < End)<br>= Last Week)<br>(HH:MM) Sets Reference For Coord Sync<br>ne / Other = That HH:MM   |
| EQUATED DAY: (I   | DEFINED DAY =  | = DAY)    |              |               | Equated To Unde   | e Must Be Used To Insure Days Are Not<br>fined Days Or Days That Are Equated To<br>allt Will Be A Day Without Events To Run.                              |
|   |  |           | TIME BASE    | DATA -        | TRAFFIC EVENTS    |   |
| DAY TIME PDAY HH: MM  1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | PATTERN<br>5/5/_<br>1/1/1<br>5/5/_<br>1/1/1<br>2/1/1<br>5/5/_<br>1/1/1<br>5/5/_<br>1/1/1 | MAX I     | FIC EVENT FO |               |                   | REFERENCE DATA: PDAY - 01-99 Program Day HH:MM - 24 Hour Clock PATTERN: (D/S/O) Flash - 5/5/0 Free - 0/0/4 MAX 2 & OMITS: Call Free, Set Pattern To 0/0/0 |
| _3_KU<br>SAM (-<br>_ 175_<br>DAY 7                          |  |           |              |               |                   | 343   |
|   |  |           |              | —             |                   |   |

#### **CAPITOL ADDRESS**

State Capitol
201 West Capital Avenue, Room 300
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# MISSOURI HOUSE OF REPRESENTATIVES

## Anne Zerr

State Representative District 18 COMMITTEES

Economic Development - Chair

Member:

Appropriations – Health, Mental Health and Social Services

Administration & Accounts
Tourism & Natural Resources
Joint Committee on
Gaming and Wagering

March 7, 2012

Kevin Corwin
City Engineer
City of St. Charles
200 N. Second Street
St. Charles, MO 63301

# Dear Kevin:

Please accept this letter of support for the City of St. Charles' Kingshighway Traffic Improvements Project. This is clearly a project that will provide numerous benefits for our community and region.

This project not only addresses much needed infrastructure improvements for the city, it will create an environment that will foster community development and job creation.

The Kingshighway Traffic Improvements will reduce congestion and improve access within the community along a vital corridor, reduce pollution, and create safer and more diverse transportation options for everyone traveling through St. Charles.

I look forward to continuing to work with you and other key partners to insure an improved transportation system is in place to provide long-term benefits for our region.

Sincerely,

Anne Zerr



P.O. Box 62 St. Peters, MO 63376 Telephone (636) 294-2526



# MISSOURI SENATE Majority Floor Leader Tom Dempsey

DISTRICT 23

## CAPITOL OFFICE

State Capitol, Room 332
Jefferson City, MO 65101-6806
Telephone (573) 751-1141
Fax (573) 522-3383
tom.dempsey@senate.mo.gov

March 19, 2012

Kevin Corwin
City Engineer
City of St. Charles
200 N. Second Street
St. Charles, MO 63301

Dear Kevin:

Please accept this letter of support for the City of St. Charles' Kingshighway Traffic Improvements Project. This is clearly a project that will provide numerous benefits for our community and region.

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Sincerely,

Tom Dempsey

TD/kd

Committees: Rules, Joint Rules, Resolutions and Ethics, Chair Gubernatorial Appointments, Vice-Chair Administration, Vice-Chair